

A Demographic Study on the Health Status of Children by Age and Gender in Selected Regions of Eluru, Andhra Pradesh, India

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Abstract:

Child health is a foundational pillar for sustainable development and reflects the overall well-being of a society. This study aims to assess the general health status of children across different age groups and genders in selected areas of Eluru District, Andhra Pradesh. The focus is to identify key health indicators, disparities, and potential risk factors influencing child health outcomes in this region. A cross-sectional, descriptive approach was adopted to collect data on physical health, nutritional status, common morbidities, and socio-demographic variables among male and female children. The study draws attention to age-specific and gender-based variations in health conditions and highlights the influence of socioeconomic and environmental factors on child well-being. Findings from this study underscore the relevance of localized health assessments in shaping targeted interventions and policy planning. The results hold significance in the context of the United Nations Sustainable Development Goals, particularly SDG 3 (Good Health and Well-being), SDG 1 (No Poverty), and SDG 10 (Reduced Inequalities). The research emphasizes the need for holistic strategies that integrate healthcare access, community awareness, and equitable resource distribution to improve pediatric health outcomes in semi-urban and rural settings.

Keywords: Child Health, Age and Gender Disparities, Pediatric Morbidity, Health Assessment

1. Introduction

Health is defined by the World Health Organization (WHO) as a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity. In the context of sustainable development, ensuring health and well-being at all ages is essential—not only as a human right but also as a cornerstone of global equity and progress.(1). The Sustainable Development Goals (SDG 3) underscore the urgent need to reduce child mortality, combat disease, and strengthen health systems, particularly in low-resource and rural settings. Despite significant advancements in healthcare, the health status of children remains a critical concern, especially in developing regions. Children, being in a continuous phase of physical, cognitive, emotional, and social development, are especially vulnerable to environmental and socio-economic stressors. Their health outcomes are shaped not only by biological and medical factors but also by poverty (SDG 1), social inequities (SDG 10), and access to essential services. Historically, children's health has received relatively limited focus in health services research.(2). However, increasing recognition of its importance has spurred efforts to develop reliable and age-appropriate health assessment tools. These measures are crucial for identifying at-risk populations, evaluating the impact of public health policies, and designing interventions tailored to pediatric needs.(3). In regions such as Eluru, where healthcare access and awareness vary widely across communities, localized studies become essential for mapping health disparities and guiding targeted policy actions. Moreover, childhood morbidity—though often

non-fatal—is widely prevalent, encompassing physical illnesses, developmental delays, behavioral disorders, and psychological issues. Factors such as socioeconomic status, cultural background, gender, and living conditions can significantly influence child health outcomes.(4). As such, understanding the general health status of children across different age groups and between genders is vital for shaping inclusive healthcare strategies. This study, focused on selected areas of Eluru District in Andhra Pradesh, aims to assess the general health status of male and female children across various age groups. The objective is to generate evidence that supports equitable health interventions, aligns with the broader vision of the Sustainable Development Goals, and contributes to the long-term goal of nurturing a healthier, more resilient generation.

2. METHODOLOGY

Required data was collected by students from their native places, located in selected areas of Eluru Mandal of Eluru district, Andhra Pradesh by Survey method. A standard questionnaire was prepared which included: Eye, ENT, Dental, Skin, Ortho, Gynaec, gastric, respiratory, other general health Problems, Blood groups and Haemoglobin Percentage. The study areas included: Twelve areas were selected from Eluru district which included Ashok Nagar, St. Lucy Convent, Eastern Street, Narasimha Rao Pet, Vangayagudem, Near Ramalayam, Vangayagudem, near Maheswari Colony, Ashok Nagar, First Lane, Ashok Nagar, Pathebad, Ashok Nagar, Second Lane, Ashok Nagar, Yellapragada Street, Sanivarapu Pet, Denduluru, Sanivarapupet, Gavaravaram. The data was collected from 49 subjects and results were tabulated. The information for the present study has been collected from the selected households as a primary source and the results are tabulated. Along with data collection, awareness on personal hygiene, symptoms, basic medical facts about various children health problems like Eye, ENT, Dental, Skin, Ortho, Gynaec, gastric, respiratory, other general health Problems.

3. Result

Table-1 Profile of the selected Study areas

S.No.	Name of the Study area	Mandal	District
1	Ashok Nagar, St. Lucy Convent	Eluru	Eluru
2	Eastern Street	Eluru	Eluru
3	Narasimha Rao Pet	Eluru	Eluru
4	Vangayagudem, Near Ramalayam	Eluru	Eluru
5	Vangayagudem, Maheswari Colony	Eluru	Eluru
6	Ashok Nagar, First Lane	Eluru	Eluru
7	Ashok Nagar, Pathebaada	Eluru	Eluru
8	Ashok Nagar, Second Lane	Eluru	Eluru
9	Ashok Nagar, Yellapragada Street	Eluru	Eluru
10	Sanivarapu Pet, Mosque Street	Eluru	Eluru
11	Denduluru	Eluru	Eluru
12	Sanivarapupeta, Gavaravaram	Eluru	Eluru

Table 1 shows the Profile of the selected Study areas. Twelve areas were selected from Eluru district.

Table 2 Number of Children surveyed

S. No	Age Group	Male		Female	
		Number	%	Number	%
1	0-5	5	15.62	3	17.64
2	6-10	11	34.37	7	41.17
3	11-14	16	50	7	41.17
	Grand Total	32	99.99	17	99.98

Table 2 shows the number of Male and Female subjects surveyed. Total number of Male was 32 and females was 17.

Among males,

15.62% are in the age group of 0-5 years.

34.37% are in the age group of 6-10 years

50% are in the age group of 11-14 years

Among females,

17.64% are in the age group of 0-5 years.

41.17% are in the age group of 6-10 years

41.17% are in the age group of 11-14 years

Table 3 Haemoglobin levels in male children of different age groups

S.No	Haemoglobin level	Males					
		0-5		6-10		11-14	
		Number	%	Number	%	Number	%
1	Less than 10	2	6.25	4	12.5	5	15.62
2	Above 10	3	9.37	7	21.87	11	34.37

Table 3 reveals that in

Among 0-5 years of age group, 6.25% of Male subjects are having less than 10 hemoglobin level

Among 6-10 years of age group, 12.5 % of Males are having less than 10 hemoglobin level

Among 11-14 years of age group, 15.62% of Male subjects are having less than 10 hemoglobin level

Among 0-5 years of age group, 9.37% of Male subjects are having above 10 hemoglobin level

Among 6-10 years of age group, 21.87 % of Males are having above 10 hemoglobin level

Among 11-14 years of age group, 34.37% of Male subjects are having above 10 hemoglobin level

Table 4 Haemoglobin levels in female children of different age groups

S.No	Haemoglobin level	Females					
		0-5		6-10		11-14	
		Number	%	Number	%	Number	%
1	Less than 10	3	17.64	3	17.64	3	17.64
2	Above 10	1	5.88	2	11.76	5	29.41

Table 4 reveals that in

Among 0-5 years of age group, 17.64% of Female subjects are having less than 10 hemoglobin level

Among 6-10 years of age group, 17.64 % of Females are having less than 10 hemoglobin level

Among 11-14 years of age group, 17.64% of Females subjects are having less than 10 hemoglobin level

Among 0-5 years of age group, 5.88% of Female subjects are having above 10 hemoglobin level

Among 6-10 years of age group, 11.76 % of Females are having above 10 hemoglobin level

Among 11-14 years of age group, 29.41% of Female subjects are having above 10 hemoglobin level.

Table 5 Blood groups in Male children of different age groups

S.No	Age group	A		B		AB		O	
		Number	%	Number	%	Number	%	Number	%
1	0-5	0	0	2	6.25	0	0	3	9.37
2	6-10	0	0	7	21.87	0	0	4	12.5
3	11-14	3	9.37	3	9.37	2	6.25	8	25

Table 5 reveals that

In the age group of 0-5 years, 6.25 % are with “B” Blood group, 9.37% are with “O” group.

There are no subjects with “A” and “AB” groups in this age.

In the age group of 6-10 years, 21.87% are with “B” Blood group, 12.5% are with “O” group.

There are no subjects with “A” and “AB” groups in this age.

In the age group of 11-14 years, 9.37% are with “A” Blood group, 9.37% are with “B” group, 6.25% are with “AB” group, 25% are with “O” group.

Table 6 Blood groups of Female children of different age groups

S.No	Age group	A		B		AB		O	
		Number	%	Number	%	Number	%	Number	%
1	0-5	0	0	1	5.88	0	0	2	11.76
2	6-10	1	5.88	3	17.64	0	0	3	17.64
3	11-14	2	11.76	3	17.64	1	5.88	1	5.88

Table 6 reveals that

In the age group of 0-5 years, 5.88% are with “B” Blood group, 11.76% are with “O” group.

There are no subjects with “A” and “AB” groups in this age.

In the age group of 6-10 years, 5.88% are with “A” Blood group, 17.64% are with “B” group. 17.64% are with “O” group.

There are no subjects with “AB” groups in this age.

In the age group of 11-14 years, 9.37% are with “A” Blood group, 9.37% are with “B” group, 6.25% are with “AB” group.

25% are with “O” group.

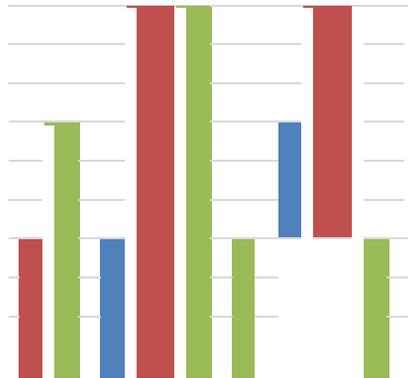


Table 7 No.of Major health Problems in male children of different age groups

S.No	Age Group	Eye	ENT	Dental	Skin	Gastric
1	0-5	0	1	3	4	2
2	6-10	1	0	3	3	2
3	11-14	3	0	5	7	3

Table 7 reveals that

In the age group of 0-5years of age group, 10 subjects,

In the age group of 6-10 years of age group,9 subjects

In the age group of 11-14 years of age group,18 subjects are suffering from various health problems.

Table 8 Percentage of Major health Problems in male children of different age groups

S. No	Age Group	Eye	ENT	Dental	Skin	Gastric
1	0-5	0	2.77	8.33	11.11	5.55
2	6-10	2.77	0	8.33	8.33	5.55
3	11-14	8.33	0	13.88	19.44	8.33

Table 8 reveals that

In the age group of 0-5years 2.77% Male subjects are suffering from ENT problem,8.33% are suffering from dental problems, 11.11% are suffering from Skin problem,5.55% are suffering from gastric problem.

In the age group of 6-10 years 2.77% Male subject suffering with Eye problem, 8.33% Male subjects are suffering from Dental problem, 8.33% are suffering from Skin problem,5.55% are suffering from gastric problem.

In the age group of 11-14 years 8.33% Male subject suffering with Eye problem, 13.88% Male subjects are suffering from Dental problem, 19.44% are suffering from Skin problem,8.33% are suffering from gastric problem.

Table 9 No.of Major health Problems in female children of different age groups

S.No	Age Group	Eye	ENT	Dental	Skin	Ortho	Gynaec	Gastric	Respiratory
1	0-5	4	2	3	2	0	0	1	2
2	6-10	1	0	3	3	1	1	0	0
3	11-14	1	1	2	2	0	0	1	0

Table 9 reveals that

In the age group of 0-5years of age group, 14 subjects,

In the age group of 6-10 years of age group,9 subjects

In the age group of 11-14 years of age group,7 subjects are suffering from various health problems.

Table 10 Percentage of Major health Problems in female children of different age groups

S. No	Age Group	Eye	ENT	Dental	Skin	Ortho	Gynaec	Gastric	Respiratory
1	0-5	13.33	6.66	10	6.66	0	0	3.33	6.66
2	6-10	3.33	0	10	10	3.33	3.33	0	0
3	11-14	3.33	3.33	6.66	6.66	0	0	3.33	0

Table 10 reveals that

In the age group of 0-5years 13.33% Female subjects are suffering from Eye problem, 6.66%are suffering from ENT problem,10% are suffering from dental problems, 6.66% are suffering from Skin problem,3.33% are suffering from gastric problem, 6.66% are suffering from respiratory problem,

In the age group of 6-10 years 3.33% Female subject suffering with Eye problem, 10% Female subjects are suffering from Dental problem, 10% are suffering from Skin problem,3.33% are suffering from Ortho problem, 3.33% are suffering from gynaec problem.

In the age group of 11-14 years 3.33% Female subject suffering with Eye problem, 3.33% Female subjects are suffering from ENT problem, 6.66% Female subjects are suffering from Dental problem 6.66% are suffering from Skin problem,3.33% are suffering from gastric problem.

4. DISCUSSION

In the present study, the dental, skin, respiratory problems are higher in Male and females of 0-5 age group as their families come under low socio-economic group. Skin and dental problems are commonly reported in the age groups of females of 6-10, 11-14 age groups as they are not following proper sanitary measures in the selected sites. Lack of preventive health care, poor nutrition, poverty as direct factors in undermining a child's health. This is an area where the majority of the parents have faced some issue or the other. In the past ‘malnutrition’ was a term used to describe primarily ‘undernutrition’ with deficiencies of various vitamins and minerals but now the other component of malnutrition i.e., ‘overweight and obesity’ is also becoming an emerging threat in the pediatric population. (4) Many times, children are brought with the complaint of fussy eating and pica (eating of nonfood substances for example mud, paint, plaster, etc). The diet should be balanced including servings of cereals, fruits and vegetables, dal, milk, nuts, eggs etc. Also, overeating and consumption of carbonated beverages, fatty meals and junk food should be avoided. Screen time (TV, mobile) should be limited and physical activities should be encouraged to inculcate a healthy lifestyle among children.

5. SUGGESTIONS

5.1. Nasal Health Recommendations

- To support sinus and nasal health, a holistic lifestyle approach is essential:
- Strengthen overall immunity through proper nutrition and rest.
- Minimize exposure to allergens and pollutants (e.g., dust, smoke, chemical irritants).
- Maintain a balanced immune response with antioxidant-rich foods.

- Consume a diverse range of fresh fruits and vegetables.
- Limit intake of sugar, refined carbohydrates, and processed foods.
- Stay well-hydrated—adequate water intake supports mucosal health.
- Engage in regular moderate physical activity to improve circulation.
- Manage stress through mindfulness, yoga, or meditation.
- Ensure consistent, quality sleep for immune and respiratory recovery.

5.2. Ear Care Suggestions

- The ear is a delicate organ requiring careful protection:
- Avoid inserting sharp objects (e.g., pins, pencils) into the ear canal.
- Use clean, soft ear buds sparingly and carefully.
- Reduce exposure to loud noise; use protective earplugs if necessary.
- Seek medical attention immediately for any signs of hearing loss, pain, or discharge.
- If diagnosed with hearing impairment, consider timely use of hearing aids to prevent further complications.

5.3. Skin Health Guidelines

- Maintaining hygiene and preventing cross-contamination are key to skin health:
- Wash hands thoroughly with soap and water, especially before meals.
- Avoid sharing personal hygiene items (e.g., towels, razors, soaps, lotions).
- Refrain from using hot tubs or steam rooms when open wounds or skin infections are present.
- Wash clothes regularly and wear clean garments daily.
- Dry hands with a clean towel or air dryer, and avoid touching shared surfaces afterward.

5.4. Throat Care Suggestions

- To maintain oral and throat hygiene:
- Rinse with a suitable mouthwash to reduce microbial load.
- Avoid touching the tongue or throat with fingers or foreign objects.
- Eliminate spicy and overly hot foods if symptoms are present.
- Avoid habits like biting on jewelry or hard objects that can damage oral tissues.

5.5. Eye Care Recommendations

- Eyes are highly sensitive and require preventive care:
- Consume foods rich in Vitamin A (e.g., carrots, green leafy vegetables) to support vision.
- Practice good posture and take frequent breaks while reading or using digital screens.
- Undergo regular ophthalmic checkups, especially if visual discomfort or symptoms arise.
- Maintain a safe viewing distance when watching television or using devices.
- Use protective eyewear during hazardous tasks or bright light exposure.

5.6. Lifestyle Modifications for Overall Health

- Adopting a balanced lifestyle supports physical and mental well-being:
- Identify and reduce personal health triggers (e.g., allergens, stressors).
- Maintain a consistent sleep schedule and prioritize rest.
- Eat balanced meals without skipping and avoid high-fat, high-cholesterol diets.
- Engage in daily physical activity; practices like **Pranayama** are beneficial.
- Learn effective stress management techniques, including meditation and journaling.

- When dealing with migraines, rest in a dark, quiet space during the onset.

5.7. Role of Homeopathy in Migraine Management

- Homeopathy may offer gentle, individualized support for migraine sufferers:
- Adolescents and adults with recurrent migraines are encouraged to explore homeopathy under professional guidance.
- Avoid overuse of painkillers, which can lead to side effects such as gastric irritation and dependency.
- Common migraine triggers include emotional stress, hormonal changes, sleep disturbances, certain foods, and loud sounds. Addressing these triggers is essential in holistic management

6. Conclusion

Child health serves as a fundamental indicator of a nation's social development and future potential. This study reaffirms that children, especially those from socio-economically disadvantaged and marginalized communities, are particularly vulnerable to a range of health challenges—many of which are preventable. Factors such as malnutrition, poverty, inadequate healthcare access, environmental hazards, and lack of parental awareness contribute significantly to the physical and psychological burden experienced during childhood. The implications of poor child health extend beyond the individual, affecting educational participation, social engagement, and long-term human capital development. When health issues remain unaddressed, they perpetuate cycles of poverty, inequality, and reduced opportunity—thereby impeding progress toward several Sustainable Development Goals, especially SDG 3 (Good Health and Well-being), SDG 1 (No Poverty), and SDG 4 (Quality Education). Improving child health requires a multi-sectoral approach that ensures access to adequate nutrition, preventive healthcare, clean living environments, education, and social protection. (5). Equally essential is empowering families and communities through health literacy and inclusive policy interventions. Investing in the health and well-being of children not only uplifts individual lives but also lays the foundation for a healthier, more equitable, and prosperous society.

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